

CLAIMS :

1. A polypeptide selected from the group consisting of the
5 polypeptide as set forth in SEQ ID NO: 3, the polypeptide as set
forth in SEQ ID NO: 4, the polypeptide as set forth in SEQ ID NO:
5, and the polypeptide as set forth in SEQ ID NO: 6.

2. A polypeptide analog selected from the group consisting of a
10 polypeptide analog of at least five contiguous amino acids of
SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO:
5, or of SEQ ID NO: 6, a polypeptide analog of at least two
contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ
ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide
15 analog consisting of the amino acid sequence X₁ W Q X₂ D X₁ C X₁
X₂ C X₂ C X₃ X₁ X₂ as set forth in SEQ ID NO: 89, wherein X₁ is
either glutamic acid (Glu), asparagine (Asn) or aspartic acid
(Asp), X₂ is either threonine (Thr) or serine (Ser), and X₃ is
either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide
20 analog comprising SEQ ID NO: 5 and having an addition of at
least one amino acid to its amino-terminus, wherein said
polypeptide analog comprising SEQ ID NO: 5 is selected from the
group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a
polypeptide analog comprising SEQ ID NO: 5 and having an
addition of at least one amino acid to its carboxy-terminus,
25 wherein said polypeptide analog comprising SEQ ID NO: 5 is
selected from the group consisting of SEQ ID NO: 10 to SEQ ID
NO: 58, a polypeptide analog comprising two to fifty units of
SEQ ID NO: 5, a polypeptide analog comprising two to ten units
30 of SEQ ID NO: 5, a polypeptide analog consisting of a sequence
of from two to fourteen amino acid units wherein the amino acid
units are selected from the group of amino acid units of SEQ ID
NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp),
glutamine (Gln), threonine (Thr), aspartic acid (Asp),
35 asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a
polypeptide analog having at least 90 % of its amino acid
sequence identical to the amino acid sequence set forth in SEQ
ID NO: 5, a polypeptide analog having at least 70 % of its
amino acid sequence identical to the amino acid sequence set
40 forth in SEQ ID NO: 5, and a polypeptide analog having at least
50 % of its amino acid sequence identical to the amino acid
sequence set forth in SEQ ID NO: 5, said polypeptide analog
being capable of inhibiting the growth of prostatic
adenocarcinoma, stomach cancer, breast cancer, endometrial,

ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH).

3. A polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence X₁ W Q X₂ D X₁ C X₁ X₂ C X₂ C X₃ X₁ X₂ as set forth in SEQ ID NO: 89, wherein X₁ is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp), X₂ is either threonine (Thr) or serine (Ser), and X₃ is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, said polypeptide analog being capable of inhibiting the growth of a tumor.

4. The use of a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), and the polypeptide as set forth in SEQ ID

NO: 6 (polypeptide 76-94) and mixture(s) thereof, for inhibiting growth of prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH).

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5. The use of a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ

10 ID NO: 5 (PCK3145), and the polypeptide as set forth in SEQ ID NO: 6 (polypeptide 76-94) and mixture(s) thereof, for inhibiting the growth of a tumor.

15 6. The use of rHuPSP94 as set forth in SEQ ID NO: 2 according to claim 4 wherein rHuPSP94 is used in a dosage range from about 10 micrograms/kg/day to about 4 milligrams/kg/day.

20 7. The use of rHuPSP94 as set forth in SEQ ID NO: 2 according to claim 4 wherein rHuPSP94 is used in a dosage range from about 500 picograms/kg/day to about 1 milligram/kg/day.

25 8. The use of rHuPSP94 as set forth in SEQ ID NO: 2 according to claim 4 wherein rHuPSP94 is used in a dosage range from about 5 nanograms/kg/day to about 10 micrograms/kg/day.

9. The use of rHuPSP94 as set forth in SEQ ID NO: 2 according to claim 4 wherein rHuPSP94 is used in a dosage range from about 5 nanograms/kg/day to about 500 nanograms/kg/day.

30 10. The use of a polypeptide according to claim 4 wherein said polypeptide is selected from the group consisting of the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4, the polypeptide as set forth in SEQ ID NO: 5, the polypeptide as set forth in SEQ ID NO: 6, and mixtures thereof wherein said polypeptide is used in a dosage range from about 100 nanograms/kg/day to about 4 milligrams/kg/day.

35 11. The use of a polypeptide according to claim 4 wherein said polypeptide is used with an anticancer drug

40 12. The use of a polypeptide according to claim 11 wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-uracil,

methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

13. The use of a polypeptide as in claim 4 wherein
5 said polypeptide is used with a pharmaceutically acceptable carrier.

14. The use of a polypeptide according to claim 11 wherein said
10 polypeptide is used with a pharmaceutically acceptable carrier.

15. The use of a polypeptide as in claim 4 wherein
15 said polypeptide is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide.

16. The use of a polypeptide according to claim 11 wherein said
20 polypeptide is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide.

17. The use of a polypeptide according to claim 13 wherein said
25 polypeptide is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide.

18. The use of a polypeptide according to claim 14 wherein said
30 polypeptide is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide.

19. The use of a polypeptide analog selected from the group
35 consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence X₁ W Q X₂ D X₁ C X₁ X₂ C X₂ C X₃ X₁ X₂ as set forth in SEQ ID NO: 89, wherein X₁ is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp), X₂ is either threonine (Thr) or serine (Ser), and X₃ is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is

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selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is

5 selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a

10 polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5 for inhibiting growth of

15 prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH).

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25 20.The use of a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence X₁ W Q X₂ D X₁ C X₁ X₂ C X₂ C X₃ X₁ X₂ as set forth in SEQ ID NO: 89, wherein X₁ is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp), X₂ is either threonine (Thr) or serine (Ser), and X₃ is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of

SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5 for inhibiting the growth of a tumor.

21. The use of a polypeptide analog according to claim 19 wherein said polypeptide analog is used with an anticancer drug.

22. The use of a polypeptide analog according to claim 21, wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-uracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

23. The use of a polypeptide analog according to claim 19 wherein said polypeptide analog is used with a pharmaceutically acceptable carrier.

24. The use of a polypeptide analog according to claim 21 wherein said polypeptide analog is used with a pharmaceutically acceptable carrier.

25. The use of a polypeptide analog according to claim 19 wherein said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide analog.

26. The use of a polypeptide analog according to claim 21 wherein said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and

polysaccharides for effecting continual dosing of said polypeptide analog.

27.The use of a polypeptide analog according to claim 23 wherein
5 said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and

polysaccharides for effecting continual dosing of said polypeptide analog.

10 28.The use of a polypeptide analog according to claim 24 wherein
said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide analog.

15 29.A method for treating a patient with prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), the method comprising administering to the patient a pharmaceutical composition comprising a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), and the polypeptide as set forth in SEQ ID NO: 6 (polypeptide 76-94) and mixtures thereof.

30 30.A method for treating a patient with a tumor, the method comprising administering to the patient a pharmaceutical composition comprising a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), and the polypeptide as set forth in SEQ ID NO: 6 (polypeptide 76-94) and mixtures thereof.

35 31.The method according to claim 29 wherein rHuPSP94 (SEQ ID NO: 2) is administered in a dosage range from about 10 micrograms/kg/day to about 4 milligrams/kg/day.

40 32.The method according to claim 29 wherein rHuPSP94 (SEQ ID NO: 2) is administered in a dosage range from about 25 picograms/kg/day to about 1 milligram/kg/day.

33.The method according to claim 29 wherein human rHuPSP94
(SEQ ID NO: 2) is administered in a dosage range from about 5
nanograms/kg/day to about 10 micrograms/kg/day.

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34.The method according to claim 29 wherein said polypeptide
is selected from the group consisting of the decapeptide as set
forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID
NO: 4, the polypeptide as set forth in SEQ ID NO: 5, the
10 polypeptide as set forth in SEQ ID NO: 6, and mixtures thereof,
wherein said polypeptide is used in a dosage range from about
100 nanograms/kg/day to about 4 milligrams/kg/day.

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35.The method according to claim 29 wherein said polypeptide
15 is used with an anticancer drug.

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36.The method of claim 35 wherein said anticancer drug is selected
from the group consisting of mitomycin, idarubicin, cisplatin,
5-fluoro-uracil, methotrexate, adriamycin, daunomycin, taxol,
20 taxol derivative, and mixtures thereof.

20

37.The method according to claim 29 wherein said polypeptide
is used with a pharmaceutically acceptable carrier.

25

38.The method according to claim 35 wherein said polypeptide is
used with a pharmaceutically acceptable carrier.

30

39.The method according to claim 29 wherein said polypeptide
is used with a time-release means selected from the group
consisting of liposomes and polysaccharides for effecting
continual dosing of said polypeptide.

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40.The method according to claim 35 wherein said polypeptide is
used with a time-release means selected from the group
consisting of liposomes and polysaccharides for effecting
continual dosing of said polypeptide.

35

41.The method according to claim 37 wherein said polypeptide is
used with a time-release means selected from the group
40 consisting of liposomes and polysaccharides for effecting
continual dosing of said polypeptide.

40

42.The method according to claim 38 wherein said polypeptide is
used with a time-release means selected from the group

consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide.

43.A method for treating a patient with prostatic adenocarcinoma,
5 stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), the method comprising administering to the patient a pharmaceutical composition including a vector comprising the nucleotide sequence of SEQ ID NO: 9 and a pharmaceutically acceptable carrier.
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44.A method for treating a patient with a tumor, the method comprising administering to the patient a pharmaceutical composition including a vector comprising the nucleotide sequence of SEQ ID NO: 9 and a pharmaceutically acceptable carrier.
15

45.The method according to claim 43 wherein said vector is used with an anticancer drug.
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46.The method according to claim 45, wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-uracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.
25

47.The method according to claim 43 wherein said vector is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said vector.
30

48.The method according to claim 45 wherein said vector is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said vector.
35

49.A method for treating a patient with prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), the method comprising administering to the patient a pharmaceutical composition comprising a polynucleotide selected from the group consisting of a polynucleotide having at least 10 to 285 contiguous residues of SEQ ID NO: 9, and a polynucleotide having at least 10 to 50 contiguous residues of SEQ ID NO: 9, and a pharmaceutically acceptable carrier.
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50.A method for treating a patient with a tumor, the method
comprising administering to the patient a pharmaceutical
composition comprising a polynucleotide selected from the group
5 consisting of a polynucleotide having at least 10 to 285
contiguous residues of SEQ ID NO: 9, and a polynucleotide
having at least 10 to 50 contiguous residues of SEQ ID NO: 9,
and a pharmaceutically acceptable carrier.

10 51.The method according to claim 49 wherein said
polynucleotide is used with an anticancer drug.

15 52.The method according to claim 51, wherein said anticancer drug
is selected from the group consisting of mitomycin, idarubicin,
cisplatin, 5-fluoro-uracil, methotrexate, adriamycin,
daunomycin, taxol, taxol derivative, and mixtures thereof.

20 53.The method according to claim 49 wherein said
polynucleotide is used with a time-release means selected from
the group consisting of liposomes and polysaccharides for
effecting continual dosing of said polynucleotide.

25 54.The method according to claim 51 wherein said polynucleotide is
used with a time-release means selected from the group
consisting of liposomes and polysaccharides for effecting
continual dosing of said polynucleotide.

30 55.A method for treating a patient with prostatic adenocarcinoma,
stomach cancer, breast cancer, endometrial, ovarian or other
cancers of epithelial secretion, or benign prostate hyperplasia
(BPH), the method comprising administering to the patient a
pharmaceutical composition comprising a polypeptide analog
selected from the group consisting of a polypeptide analog of
at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID
35 NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a
polypeptide analog of at least two contiguous amino acids of
SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO:
5, or of SEQ ID NO: 6, a polypeptide analog consisting of the
40 amino acid sequence X₁ W Q X₂ D X₁ C X₁ X₂ C X₂ C X₃ X₁ X₂ as set
forth in SEQ ID NO: 89, wherein X₁ is either glutamic acid
(Glu), asparagine (Asn) or aspartic acid (Asp), X₂ is either
threonine (Thr) or serine (Ser), and X₃ is either tyrosine
(Tyr) or phenylalanine (Phe), a polypeptide analog comprising
SEQ ID NO: 5 and having an addition of at least one amino acid

to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid
5 to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide
10 analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn),
15 cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a
20 polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, said polypeptide analog being capable of inhibiting the growth of prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial
25 secretion, or benign prostate hyperplasia (BPH).

56. A method for treating a patient with a tumor, the method comprising administering to the patient a pharmaceutical composition comprising a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ
30 ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence X₁ W Q X₂ D X₁ C X₁ X₂ C X₂ C X₃ X₁ X₂ as set forth in SEQ ID NO: 89, wherein X₁ is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp), X₂ is either threonine (Thr) or serine (Ser), and X₃ is either tyrosine (Tyr) or phenylalanine
35 (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having
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an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO:5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, said polypeptide analog being capable of inhibiting the growth a tumor.

20 57.The method according to claim 55 wherein said polypeptide analog is used with an anticancer drug.

25 58.The method according to claim 57, wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-uracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

30 59.The method according to claim 55 wherein said polypeptide analog is used with a pharmaceutically acceptable carrier.

35 60.The method according to claim 57, wherein said polypeptide analog is used with a pharmaceutically acceptable carrier.

35 61.The method according to claim 55 wherein said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide analog.

40 62.The method according to claim 57 wherein said polypeptide analog is used with a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of said polypeptide analog.

63. The method according to claim 59 wherein said polypeptide
analog is used with a time-release means selected from the
group consisting of liposomes and polysaccharides for effecting
5 continual dosing of said polypeptide analog.

64. The method according to claim 60 wherein said polypeptide
analog is used with a time-release means selected from the
group consisting of liposomes and polysaccharides for effecting
10 continual dosing of said polypeptide analog.

65. A pharmaceutical composition for inhibiting the growth of a
tumor in a patient suffering from prostatic adenocarcinoma,
stomach cancer, breast cancer, endometrial, ovarian or other
15 cancers of epithelial secretion, or benign prostate hyperplasia
(BPH), comprising:

- 20 a) a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (Polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), the polypeptide as set forth in SEQ ID NO: 6 (Polypeptide 76-94) and mixture(s) thereof, and;
- 25 b) an anticancer drug.

66. A pharmaceutical composition for inhibiting the growth of a
tumor in a patient suffering from prostatic adenocarcinoma,
30 stomach cancer, breast cancer, endometrial, ovarian or other
cancers of epithelial secretion, or benign prostate hyperplasia
(BPH), comprising:

- 35 a) a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (Polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), the polypeptide as set forth in SEQ ID NO: 6 (Polypeptide 76-94) and mixture(s) thereof, and;
- 40 b) a pharmaceutically acceptable carrier.

67. A pharmaceutical composition comprising:

5 a) A polypeptide selected from the group consisting of
 rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as
 set forth in SEQ ID NO: 3, the polypeptide as set forth
 in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as
 set forth in SEQ ID NO: 5 (PCK3145), the polypeptide as
 set forth in SEQ ID NO: 6 (polypeptide 76-94) and
 mixture(s) thereof in a therapeutically effective amount,
 and;

10 b) an anticancer drug in a therapeutically effective amount.

68.A pharmaceutical composition comprising:

15 a) a polypeptide selected from the group consisting of
 rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as
 set forth in SEQ ID NO: 3, the polypeptide as set forth
 in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as
 set forth in SEQ ID NO: 5 (PCK3145), the polypeptide as
 set forth in SEQ ID NO: 6 (polypeptide 76-94) and
 mixture(s) thereof in a therapeutically effective amount,
 and;

25 b) a pharmaceutically acceptable carrier.

20 69.A pharmaceutical composition as in claim 65 wherein
 rHuPSP94 (SEQ ID NO: 2) is used in a dosage range from about 10
 micrograms/kg/day to about 4 milligrams/kg/day.

30 70.A pharmaceutical composition as in claim 65 wherein
 rHuPSP94 (SEQ ID NO: 2) is used in a dosage range from about
 500 picograms/kg/day to about 1 milligram/kg/day.

35 71.A pharmaceutical composition as in claim 65 wherein
 rHuPSP94 is used in a dosage range from about 5
 nanograms/kg/day to about 10 micrograms/kg/day.

40 72.A pharmaceutical composition as in claim 65 wherein
 rHuPSP94 is used in a dosage range from about 5
 nanograms/kg/day to about 500 nanograms/kg/day.

73.A pharmaceutical composition as in claim 65 wherein
 said polypeptide is selected from the group consisting of the
 decapeptide as set forth in SEQ ID NO: 3, the polypeptide as

set forth in SEQ ID NO: 4, the polypeptide as set forth in SEQ ID NO: 5, the polypeptide as set forth in SEQ ID NO:6 and mixture(s) thereof, wherein said polypeptide is used in a dosage range from about 100 nanograms/kg/day to about 4 milligrams/kg/day.

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74.A pharmaceutical composition according to claim 66 further comprising an anticancer drug.

10 75.A pharmaceutical composition according to claim 65, wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluorouracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

15 76.A pharmaceutical composition as in claim 65 further comprising a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of the composition.

20 77.A pharmaceutical composition for inhibiting the growth of a tumor in a patient suffering from prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), comprising a vector comprising the nucleotide sequence of SEQ ID NO: 9 and a pharmaceutically acceptable carrier.

25 78.A pharmaceutical composition for inhibiting the growth of a tumor in a patient, comprising a vector comprising the nucleotide sequence of SEQ ID NO: 9 and a pharmaceutically acceptable carrier.

30 79.A pharmaceutical composition for inhibiting the growth of a tumor in a patient suffering from prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), comprising a polynucleotide selected from the group consisting of a polynucleotide having at least 10 to 285 contiguous residues of SEQ ID NO: 9 and a polynucleotide having at least 10 to 50 contiguous residues of SEQ ID NO: 9, and a pharmaceutically acceptable carrier.

35 80.A pharmaceutical composition for inhibiting the growth of a tumor in a patient, comprising a polynucleotide selected from

the group consisting of a polynucleotide having at least 10 to 285 contiguous residues of SEQ ID NO: 9 and a polynucleotide having at least 10 to 50 contiguous residues of SEQ ID NO: 9, and a pharmaceutically acceptable carrier.

5

81.A pharmaceutical composition as in claim 77 further comprising an anticancer drug.

10 82.A pharmaceutical composition according to claim 81 wherein said anticancer drug is selected from the group consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-uracil, methotrexate, adriamycin, daunomycin, taxol, taxol derivative, and mixtures thereof.

15 83.A pharmaceutical composition for inhibiting the growth of a tumor in a patient suffering from prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, or benign prostate hyperplasia (BPH), comprising:

20

25 a) a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence X₁ W Q X₂ D X₁ C X₁ X₂ C X₂ C X₃ X₁ X₂ as set forth in SEQ ID NO: 89, wherein X₁ is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp), X₂ is either threonine (Thr) or serine (Ser), and X₃ is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of

a sequence of from two to fourteen amino acid units
wherein the amino acid units are selected from the group
of amino acid units of SEQ ID NO: 5 consisting of
glutamic acid (Glu), tryptophan (Trp), glutamine (Gln),
5 threonine (Thr), aspartic acid (Asp), asparagine (Asn),
cysteine (Cys), or tyrosine (Tyr), a polypeptide analog
having at least 90 % of its amino acid sequence identical
to the amino acid sequence set forth in SEQ ID NO: 5, a
10 polypeptide analog having at least 70 % of its amino acid
sequence identical to the amino acid sequence set forth
in SEQ ID NO: 5, and a polypeptide analog having at least
50 % of its amino acid sequence identical to the amino
acid sequence set forth in SEQ ID NO: 5, and mixture(s)
thereof, and;

15

- b) an anticancer drug.

84. A pharmaceutical composition for inhibiting the growth of a
20 tumor in a patient suffering from prostatic adenocarcinoma,
stomach cancer, breast cancer, endometrial, ovarian or other
cancers of epithelial secretion, or benign prostate hyperplasia
(BPH), comprising:

25

- a) a polypeptide analog selected from the group consisting
of a polypeptide analog of at least five contiguous amino
acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of
SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at
least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID
NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6,
30 a polypeptide analog consisting of the amino acid sequence
 $X_1 W Q X_2 D X_1 C X_1 X_2 C X_2 C X_3 X_1 X_2$ as set forth in SEQ ID NO:
89, wherein X_1 is either glutamic acid (Glu), asparagine
(Asn) or aspartic acid (Asp), X_2 is either threonine (Thr)
35 or serine (Ser), and X_3 is either tyrosine (Tyr) or
phenylalanine (Phe), a polypeptide analog comprising SEQ ID
NO: 5 and having an addition of at least one amino acid to
its amino-terminus wherein said polypeptide analog
comprising SEQ ID NO: 5 is selected from the group consisting
40 of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog
comprising SEQ ID NO: 5 and having an addition of at least
one amino acid to its carboxy-terminus, wherein said
polypeptide analog comprising SEQ ID NO: 5 is selected from
the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a

polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its 5 amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 10 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and 15 mixture(s) thereof, and;

a) a pharmaceutically acceptable carrier.

20 85.A pharmaceutical composition comprising:

a) a polypeptide analog selected from the group consisting 25 of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the 30 amino acid sequence X₁ W Q X₂ D X₁ C X₁ X₂ C X₂ C X₃ X₁ X₂ as set forth in SEQ ID NO: 89, wherein X₁ is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp), X₂ is either threonine (Thr) or serine (Ser), and X₃ is either tyrosine (Tyr) or phenylalanine (Phe), a 35 polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide 40 analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten

units of SEQ ID NO: 5, a polypeptide analog consisting of
a sequence of from two to fourteen amino acid units
wherein the amino acid units are selected from the group
of amino acid units of SEQ ID NO: 5 consisting of
5 glutamic acid (Glu), tryptophan (Trp), glutamine (Gln),
threonine (Thr), aspartic acid (Asp), asparagine (Asn),
cysteine (Cys), or tyrosine (Tyr), a polypeptide analog
having at least 90 % of its amino acid sequence identical
to the amino acid sequence set forth in SEQ ID NO: 5, a
10 polypeptide analog having at least 70 % of its amino acid
sequence identical to the amino acid sequence set forth
in SEQ ID NO: 5, and a polypeptide analog having at least
50 % of its amino acid sequence identical to the amino
acid sequence set forth in SEQ ID NO: 5 and mixture(s)
15 thereof in a therapeutically effective amount, and;

b) an anticancer drug in a therapeutically effective amount.

86.A pharmaceutical composition comprising:

20 a) a polypeptide analog selected from the group consisting
of a polypeptide analog of at least five contiguous amino
acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of
SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at
least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID
NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6,
25 a polypeptide analog consisting of the amino acid sequence
 $X_1 W Q X_2 D X_1 C X_2 C X_2 C X_3 X_1 X_2$ as set forth in SEQ ID NO:
89, wherein X_1 is either glutamic acid (Glu), asparagine
30 (Asn) or aspartic acid (Asp), X_2 is either threonine (Thr)
or serine (Ser), and X_3 is either tyrosine (Tyr) or
phenylalanine (Phe), a polypeptide analog comprising SEQ ID
NO: 5 and having an addition of at least one amino acid to
its amino-terminus, wherein said polypeptide analog
35 comprising SEQ ID NO:5 is selected from the group consisting
of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog
comprising SEQ ID NO: 5 and having an addition of at least
one amino acid to its carboxy-terminus, wherein said
polypeptide analog comprising SEQ ID NO:5 is selected from
40 the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a
polypeptide analog comprising two to fifty units of SEQ ID
NO: 5, a polypeptide analog comprising two to ten units of
SEQ ID NO: 5, a polypeptide analog consisting of a sequence
of from two to fourteen amino acid units wherein the amino

acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5 and mixture(s) thereof in a therapeutically effective amount, and;

b) a pharmaceutically acceptable carrier.

87. A pharmaceutical composition according to claim 84 further comprising an anticancer drug.

20 88.A pharmaceutical composition according to claim 83,
wherein said anticancer drug is selected from the group
consisting of mitomycin, idarubicin, cisplatin, 5-fluoro-
uracil, methotrexate, adriamycin, daunomycin, taxol, taxol
derivative, and mixtures thereof.

89. A pharmaceutical composition as in claim 83 further comprising a time-release means selected from the group consisting of liposomes and polysaccharides for effecting continual dosing of the composition.

30 90. A method for treating patients with a disease characterized by
elevated levels of FSH comprising administering a
pharmaceutical composition in an appropriate dosage form, the
pharmaceutical composition comprising a polypeptide selected
from the group consisting of rHuPSP94 as set forth SEQ ID NO:
35 2, the decapeptide as set forth in SEQ ID NO: 3, the
polypeptide as set forth in SEQ ID NO: 4, the polypeptide as
set forth in SEQ ID NO: 5, and the polypeptide as set forth in
SEQ ID NO: 6, and a pharmaceutically acceptable carrier.

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91. A method for treating patients with a disease characterized by elevated levels of FSH comprising administering a pharmaceutical composition in an appropriate dosage form, the pharmaceutical composition comprising a polypeptide analog

selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence X₁ W Q X₂ D X₁ C X₁ X₂ C X₂ C X₃ X₁ X₂ as set forth in SEQ ID NO: 89, wherein X₁ is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp), X₂ is either threonine (Thr) or serine (Ser), and X₃ is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5 and mixture(s) thereof, and a pharmaceutically acceptable carrier, in a human dose.

40 92. The use of a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), and the polypeptide as set forth in SEQ ID NO: 6 (polypeptide 76-94) and mixture(s) thereof, for treating patients with a disease characterized by elevated levels of FSH.

93. The use of a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence X₁ W Q X₂ D X₁ C X₁ X₂ C X₂ C X₃ X₁ X₂ as set forth in SEQ ID NO: 89, wherein X₁ is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp), X₂ is either threonine (Thr) or serine (Ser), and X₃ is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5 and mixture(s) thereof, for treating patients with a disease characterized by elevated levels of FSH.

94. The use of a polypeptide selected from the group consisting of rHuPSP94 as set forth in SEQ ID NO: 2, the decapeptide as set forth in SEQ ID NO: 3, the polypeptide as set forth in SEQ ID NO: 4 (polypeptide 7-21), the polypeptide as set forth in SEQ ID NO: 5 (PCK3145), the polypeptide as set forth in SEQ ID NO: 6 (polypeptide 76-94) and mixtures thereof for the manufacture

of a medicament for the therapeutic treatment of prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion, benign prostate hyperplasia (BPH) or a disease characterized by
5 elevated levels of FSH.

95. The use of a polypeptide analog selected from the group consisting of a polypeptide analog of at least five contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog of at least two contiguous amino acids of SEQ ID NO: 2, of SEQ ID NO: 3, of SEQ ID NO: 4, of SEQ ID NO: 5, or of SEQ ID NO: 6, a polypeptide analog consisting of the amino acid sequence X₁ W Q X₂ D X₁ C X₁ X₂ C X₂ C X₃ X₁ X₂ as set forth in SEQ ID NO: 89,
10 wherein X₁ is either glutamic acid (Glu), asparagine (Asn) or aspartic acid (Asp), X₂ is either threonine (Thr) or serine (Ser), and X₃ is either tyrosine (Tyr) or phenylalanine (Phe), a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its amino-terminus,
15 wherein said polypeptide analog comprising SEQ ID NO: 5 is selected from the group consisting of SEQ ID NO: 59 to SEQ ID NO: 88, a polypeptide analog comprising SEQ ID NO: 5 and having an addition of at least one amino acid to its carboxy-terminus, wherein said polypeptide analog comprising SEQ ID NO: 5 is
20 selected from the group consisting of SEQ ID NO: 10 to SEQ ID NO: 58, a polypeptide analog comprising two to fifty units of SEQ ID NO: 5, a polypeptide analog comprising two to ten units of SEQ ID NO: 5, a polypeptide analog consisting of a sequence of from two to fourteen amino acid units wherein the amino acid
25 units are selected from the group of amino acid units of SEQ ID NO: 5 consisting of glutamic acid (Glu), tryptophan (Trp), glutamine (Gln), threonine (Thr), aspartic acid (Asp), asparagine (Asn), cysteine (Cys), or tyrosine (Tyr), a polypeptide analog having at least 90 % of its amino acid
30 sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, a polypeptide analog having at least 70 % of its amino acid sequence identical to the amino acid sequence set forth in SEQ ID NO: 5, and a polypeptide analog having at least 50 % of its amino acid sequence identical to the amino acid
35 sequence set forth in SEQ ID NO: 5 and mixture(s) thereof for the manufacture of a medicament for the therapeutic treatment of prostatic adenocarcinoma, stomach cancer, breast cancer, endometrial, ovarian or other cancers of epithelial secretion,
40

benign prostate hyperplasia (BPH) or a disease characterized by elevated levels of FSH.

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